

Safety Data Sheet

Safety Data Sheet / PILOT Ultra

Issue Date : November 16, 2015

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Version No. : 1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Name of product: **PILOT Ultra**
Other names: Targa Super 5SC, Etamine, Targa Flo, Quizalofop-P-ethyl 5SC, Quizalofop-P-ethyl 50 g/L SC
Code No.: TASC-220 HP
Type of formulation: Suspension Concentrate (SC)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Function : Plant protection product, Herbicide

1.3. Details of the supplier of the safety data sheet

Manufacturer and Supplier: Nissan Chemical Europe S.A.R.L.
Parc d'affaires de Crecy 10A rue de la Voie Lactée, 69370 St-Didier-au Mont-d'or, France
Contact person: Mr. Hitoshi Ueda
Phone: +33 (0)4 37 64 40 20, Fax: +33 (0)4 37 64 68 74

1.4. Emergency telephone number

Nissan Chemical Europe S.A.R.L.: +33 (0)4 37 64 40 20 (available only during office hours)

2. HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 [CLP]

No classification

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard Pictogram:
No hazard pictogram

Signal Word:
No signal word

Hazard Statement:
No hazard statement

Precautionary Statement:
No precautionary statement

2.3. Other hazards

The product will be regarded to be neither PBT nor vPvB.

3. COMPOSITION/INFORMATION OF INGREDIENTS

Substance or mixture: Mixture

Chemical Composition:

Quizalofop-P-ethyl50 g/L
Emulsifier and waterBalance

Active Ingredient

Common Name : Quizalofop-P-ethyl
Code No. : D(+) NC-302
CAS No. : 100646-51-3
Chemical Name (CA) : Propanoic acid, 2-[4-[(6-chloro-2-quinoxalinyloxy)phenoxy]-, ethyl ester, (R)-
(IUPAC) : Ethyl (R)-2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy] propionate
Classification in accordance with Regulation (EC) No 1272/2008:
Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1
H302, H400, H410
REACH registration No. : Not assigned
EINECS or ELINCS No. : Not assigned

Inert Ingredient 1

Chemical Name : Polyoxyethylene alkyl ether
CAS No. : 84133-50-6
Content : < 25% w/w
Classification in accordance with Regulation (EC) No 1272/2008:
Acute Tox 4, Eye Irrit.3, Aquatic Acute 2
H302, H319, H400
REACH registration No. : Not disclosed
EINECS or ELINCS No. : polymer

4. FIRST AID MEASURES**4.1. Description of first aid measures**

Eye contact : Immediately rinse with running water for at least 15 minutes. Seek medical advice.
Skin contact : Remove all contaminated clothing, shoes and socks from the affected area. Wash material off the skin in flowing water or shower with soap. If irritation persists, consult a physician immediately.
Inhalation : If respiratory discomfort occurs, move the person to fresh air. If not breathing, give mouth-to-mouth resuscitation (or an artificial respiration). Keep warm with blanket and keep at rest. Seek emergency medical advice.
Ingestion : Do not induce vomiting. Wash out mouth with water. Do not give anything by mouth if person is unconscious. Seek emergency medical advice.

4.2. Most important symptoms and effects, both acute and delayed

No symptoms have been identified in humans to date.

4.3. Indication of any immediate medical attention and special treatment needed

Treat based on judgment by physician in response to symptoms of patient. No specific antidotes are known.

5. FIRE-FIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media : Water, foam, dry chemicals or carbon dioxide.

Extinguishing media which shall not be used for safety reasons : High volume water jet.

5. FIRE-FIGHTING MEASURES (continued)

5.2. Special hazards arising from the substance or mixture

Carbon dioxide, carbon monoxide, hydrogen chloride and oxides of nitrogen are potential thermal decomposed products.

5.3. Advice for firefighters

In the event of fire and/or explosion do not breathe fumes. Use self-contained breathing apparatus and protective clothing.

Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, shoes, gloves and goggles. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke.

6.2. Environmental precautions

Keep unauthorized persons, children and animals away from the affected area. Prevent spillage from entering the drainage systems or watercourses.

6.3. Methods and material for containment and cleaning up

Carefully sweep up and collect the spilled material using an inert absorbent material (sand, vermiculite, or sawdust) and place in a closed container (drum) for disposal. Remove (large quantities) with vacuum truck. Do not raise dust. Wash affected area with water containing detergent.

6.4. Reference to other sections

See section 8 for personnel protective equipment.
See section 13 for waste disposal.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

No specific precautions required when handling unopened packs/containers. Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid contact with skin or eyes. Protect containers against physical damage. Wear suitable protective clothing, shoes, gloves and goggle during handling. Do not eat, drink, or smoke during the work. Prevent spillage from entering the drainage systems or watercourses.

7.2. Conditions for safe storage, including any incompatibilities

Keep tightly closed in original labeled container. Store in a cool and dry place and protect from direct sunlight. Keep away from the reach of children. Keep away from foods, drinks and animal feeding stuffs.

7.3. Specific end use(s)

Use this product only for plant protection.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters

Exposure limit values (DNEL, PNEC) : Not available

8.2. Exposure controls

Exposure controls

Occupational exposure controls

Respiratory protection : Filter apparatus (a half face filter mask, filter type A)
Hand protection : Chemical resistant gloves, Rubber gloves

8. EXPOSURE CONTROL/PERSONAL PROTECTION (continued)**8.2. Exposure controls (continued)**

| | | |
|---------------------------------|---|--|
| Eye protection | : | Safety glasses or goggles |
| Skin protection | : | Impervious clothing such as gloves, apron or PVC boots |
| Environmental exposure controls | : | Prevent spillage from entering the drainage systems or watercourses. |

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

| | | |
|---|---|--|
| Appearance | : | White opaque liquid |
| Odour | : | Odorless |
| pH | : | 6.9 (1% w/v suspension) |
| Melting point/melting range | : | Not applicable since the product is liquid at ambient temperature. |
| Boiling point/boiling range | : | > 100 °C (approximately 70% water based product) |
| Flash point | : | Not applicable due to water based formulation |
| Evaporation rate | : | Not available |
| Flammability | : | See Auto-ignition temperature |
| Explosive properties | : | Not explosive |
| Oxidising properties | : | Not oxidising |
| Vapor pressure | : | 1.1 x 10 ⁻⁷ Pa (20 °C) data on active substance |
| Relative density | : | 1.015 g/ml (20°C) |
| Solubility | : | Not available |
| Water solubility | : | Not available |
| Partition coefficient (n-octanol/water) | : | Log Pow 4.61 at 23 °C (n-octanol/water) (quizalofop-P-ethyl) |
| Viscosity | : | 3.65 mm ² s ⁻¹ at 40°C |
| Vapor density | : | Not available |
| Auto-ignition temperature | : | 450 °C |
| Decomposition temperature | : | Not available |

9.2. Other information

No other information is available.

10. STABILITY AND REACTIVITY**10.1. Reactivity**

May react with strong bases, acids or strong oxidizing agents, such as chlorates, nitrates, peroxides.

10.2. Chemical stability

Stable under normal ambient storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions will not occur.

10.4. Conditions to avoid

Avoid high temperatures. Protect from sunlight, open flame, sources of heat and humidity.

10.5. Incompatible materials

May react with strong bases, acids or strong oxidizing agents, such as chlorates, nitrates, peroxides.

10.6. Hazardous decomposition products

None hazardous decomposition products under normal conditions of storage and use. Thermal decomposition products include carbon monoxide, nitrogen oxides and halogenated compounds.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product

| | | |
|---------------------------|---------------------------|--|
| Acute oral toxicity | : LD ₅₀ (rats) | >2,000 mg/kg |
| Acute dermal toxicity | : LD ₅₀ (rats) | >2,000 mg/kg |
| Acute inhalation toxicity | : LC ₅₀ (rats) | 5.37 mg/L (4 hrs.) |
| Eye irritation | : (rabbits) | slight to moderate irritation (not require R36) |
| Skin irritation | : (rabbits) | transient and very slight irritation (not require R38) |
| Sensitization | : (guinea pigs) | no skin sensitization |

Quizalofop-P-ethyl active ingredient

| | | | |
|---|---|---|--|
| Toxicokinetics, metabolism and distribution | : | Rapidly absorbed and extensively metabolised. Up to 70% of radioactivity was excreted in urine and faeces within 48 hours. Very low potential for accumulation. | |
| Short-term oral toxicity (90 days) | : | NOAEL (rats) | 7.7 mg/kg/day |
| Short-term oral toxicity (1 year) | : | NOAEL (dogs) | 13.4 mg/kg/day |
| Short-term dermal toxicity (21 days) | : | NOEL (rats) | 2000 mg/kg |
| Chronic/Carcinogenicity (1.5 years/mice) | : | NOAEL (toxicity) | 1.55 mg/kg/day |
| | | NOEL (tumour) | Not carcinogenic |
| Chronic/Carcinogenicity (2 years/rats) | : | NOAEL (toxicity) | 0.9 mg/kg/day |
| | | NOEL (tumour) | Not carcinogenic |
| Reproductive toxicity (rats) | : | NOEL (toxicity) | 25 mg/kg diet |
| | | NOEL (reproduction) | No effects on reproduction |
| Developmental toxicity (rats) | : | NOEL (toxicity) | 30 mg/kg/day |
| | | NOEL (development) | 100 mg/kg/day Not teratogenic |
| Developmental toxicity (rabbits) | : | NOEL (toxicity) | 30 mg/kg/day |
| | | NOEL (development) | 60 mg/kg/day Not teratogenic |
| Mutagenicity | : | Not mutagenic | (Negative in <i>in vitro</i> & <i>in vivo</i> studies) |

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Product

| | | |
|----------------------------|--|-------------------|
| Toxicity to fish | : LC ₅₀ (96 h, Rainbow trout) | 7.68 mg/L |
| Toxicity to <i>Daphnia</i> | : EC ₅₀ (48 h, <i>Daphnia magna</i>) | 17.3 mg/L |
| Toxicity to algae | : EC ₅₀ (72 h, <i>S. capricornutum</i>) | 97.6 mg/L |
| Toxicity to bees | : LD ₅₀ (Oral/Contact, 48h, <i>Apis mellifera</i>) | >100 µg/bee |
| Toxicity to earthworm | : 14-day LC ₅₀ (<i>Eisenia foetida</i>) | >1,000 mg/kg soil |

Quizalofop-P-ethyl active ingredient

| | | | |
|----------------------------|---|--|-------------------|
| Toxicity to fish | : | LC ₅₀ (96 h, Rainbow trout) | 0.388 mg/L |
| | | NOEC (21 days, Rainbow trout) | 0.044 mg/L |
| Toxicity to <i>Daphnia</i> | : | EC ₅₀ (48 h, <i>Daphnia magna</i>) | 0.29 mg/L |
| Toxicity to algae | : | EC ₅₀ (5 d, <i>S. capricornutum</i>) | 0.021 mg/L |
| Toxicity to aquatic plants | : | EC ₅₀ (7 d, <i>Lemna gibba</i> G3) | 0.0828 mg/L |
| Toxicity to earthworm | : | LC ₅₀ (<i>Eisenia foetida</i>) | >1,000 mg/kg soil |
| Toxicity to bird | : | LD ₅₀ (Bobwhite quail) | >2,000 mg/kg |
| | | LC ₅₀ (5d, Bobwhite quail/Mallard duck) | >2,000 mg/kg diet |
| | | LC ₅₀ (5d, Mallard duck) | >2,000mg/kg |
| | | NOEL (reproduction) | 500 mg/kg diet |
| Soil micro-organism | : | No effects on soil nitrification and respiration | |
| Sewage treatment | : | No adverse effect in sewage sludge organisms | |

12.2. Persistence and degradability

Product

No information is available for the product.

Quizalofop-P-ethyl active ingredient

Quizalofop-P-ethyl is hydrolytically stable, but readily degraded in soils and water/sediment systems.

12. ECOLOGICAL INFORMATION (continued)**12.2. Persistence and degradability (continued)**

| | | | |
|---|---|-------------------|-----------------------|
| Hydrolysis (20°C) | : | DT50 : >365 days | (pH 4) |
| | | 112 days | (pH 7) |
| | | < 1 day | (pH 9) |
| Aqueous photolysis (25°C) | : | DT50 : 38.3 days | (pH 5 xenon arc lamp) |
| Degradation in soil (20°C) | : | DT50 : < 2 days | |
| Degradation in water/sediment (20°C) | : | DT50 : < 2 days | |
| Ready biodegradability | : | Poorly degradable | |

12.3. Bioaccumulative potential**Product**

No information is available for the product.

Quizalofop-P-ethyl active ingredient

The potential of the substance to accumulate in biota and pass through the food chain is considered to be low based on the BCF and a rapid degradation of the substance.

| | | | |
|--|-----------------------------|---|-----------------------------|
| Partition coefficient (n-octanol/water) | Log Pow | : | 4.61 at 23 °C |
| Bioconcentration (Bluegill sunfish) | BCF (28 days) | : | 380 x (whole fish) |
| | Depuration (14 days) | : | <1 % remained in whole fish |

12.4. Mobility in soil**Product**

No information is available for the product.

Quizalofop-P-ethyl active ingredient

Quizalofop-P-ethyl is readily degraded to acid metabolite quizalofop-P in the environment. The acid quizalofop-P is less toxic than the parent quizalofop-P-ethyl. Quizalofop-P is further degraded in the environment.

| | |
|--|--|
| Surface tension (quizalofop-P-ethyl) : | Not applicable due to the water solubility (less than 1 mg/l) |
| Adsorption/desorption (quizalofop-P) : | $K_{F^{adsoc}}$: 214- 1791 (acid metabolite: low-medium mobility) |

12.5. Results of PBT and vPvB assessment**Product**

No information is available for the product, but it will be regarded to be neither PBT nor vPvB based on the data of the active ingredient.

Quizalofop-P-ethyl active ingredient

Based on the values of DT₅₀ in soil and BCF of the active ingredient, it is considered to be neither PBT nor vPvB.

12.6. Other adverse effects

Investigations indicate no significant loss of the parent quizalofop-P-ethyl to the air from either soils or plant surfaces following pesticide application.

Photochemical oxidative degradation in air : DT50 : 4.5 hours

13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Do not contaminate water, foodstuffs, feed or seed by disposal.

PRODUCT DISPOSAL

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or burned in incinerator in accordance with all applicable regulations.

13. DISPOSAL CONSIDERATIONS (continued)**CONTAINER DISPOSAL**

Completely empty container by shaking and tapping sides and bottom to loosen clinging particles. Do not reuse container. Triple rinse container, then puncture and dispose of by incineration in accordance with all applicable regulations.

14. TRANSPORT INFORMATION**14.1. UN number**

3082

14.2. UN proper shipping name

Environmental Hazardous Substance, Liquid n.o.s. (quizalofop-P-ethyl)

14.3. Transport hazard class(es)

Class 9

14.4. Packing group

Packing Group III

14.5. Environmental hazards

Marine Pollutant Label : Marine Pollutant

14.6. Special precautions for user

No special precautions available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No bulk transportation intended.

14.8. Supplemental information**IMDG**

| | | |
|------------------------|---|---|
| UN No. | : | 3082 |
| Class | : | 9 |
| Packing Group | : | III |
| Ems | : | F-A, S-F |
| Marine Pollutant Label | : | Marine Pollutant |
| Proper Shipping Name | : | Environmental Hazardous Substance, Liquid n.o.s. (quizalofop-P-ethyl) |

ICAO/IATA

| | | |
|----------------------|---|---|
| UN No. | : | 3082 |
| Class | : | 9 |
| Packing Group | : | III |
| Proper Shipping Name | : | Environmental Hazardous Substance, Liquid n.o.s. (quizalofop-P-ethyl) |

ADR/RID

| | | |
|----------------------|---|---|
| UN No. | : | 3082 |
| Class | : | 9 |
| Packing Group | : | III |
| Proper Shipping Name | : | Environmental Hazardous Substance, Liquid n.o.s. (quizalofop-P-ethyl) |

ADN/ADNR

| | | |
|----------------------|---|---|
| UN No. | : | 3082 |
| Class | : | 9 |
| Packing Group | : | III |
| Proper Shipping Name | : | Environmental Hazardous Substance, Liquid n.o.s. (quizalofop-P-ethyl) |

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU

The product is regulated under the EU Directive(s) or Regulation(s) on plant protection products since it is one of plant protection products.

Further Information

WHO Classification : III (Slightly hazardous)

15.2. Chemical safety assessment

The chemical safety assessment has not been carried out for this product yet.

16. OTHER INFORMATION

16.1 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 [CLP]

| Classification according to Regulation (EC) No 1272/2008 [CLP] | Classification procedure |
|--|--------------------------|
| Aquatic Chronic. 2, H411 | On basis of acute data |

16.2 Relevant R-phrase and/or H-statements (see Sec 2 and 3)

Hazard Statement: H411: Toxic to aquatic life with long lasting effects

Supplementary statements: EUH401: To avoid risks to human health and the environment comply with the instructions for use

Precautionary Statement: P273: Avoid release to the environment
 P391: Collect spillage
 P501: Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

This Material Safety Data Sheet is prepared in accordance with Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

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